AMENDMENTS TO THE CLAIMS:

Please amend the claims to read as follows:

9. (Previously Presented) A landing bearing for a vacuum pump, comprising:
a rotor ring and a coaxial stator ring defining a roller housing between them; and
rolling elements housed one after another in the roller housing and rolling on
respective running tracks of the rotor ring and stator ring;

wherein the rolling elements comprise an alternating succession of rolling elements having outside surfaces made of steel and of rolling elements having outside surfaces made of ceramic,

and wherein the ceramic rolling elements are of a diameter which is equal to the diameter of the steel rolling elements under normal operating temperature conditions.

- 10. (Previously Presented) A landing bearing according to claim 9, wherein the rolling elements are spherical balls.
- 11. (Previously Presented) A landing bearing according to claim 9, wherein the steel rolling elements are made of stainless steel.
- 12. (Previously Presented) A landing bearing according to claim 9, wherein the ceramic rolling elements are made of silicon nitride.

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- 13. (Previously Presented) A landing bearing according to claim 9, wherein the running tracks are made of stainless steel.
- 14. (Currently Amended) A vacuum pump including at least one landing mechanical bearing comprising a landing bearing according to claim 19.
- 15. (Previously Presented) A vacuum pump according to claim 14, comprising a rotor mounted to rotate in a stator with at least one radial magnetic bearing which, in normal operation, holds the rotor in a radially centered position inside the stator, and with at least one mechanical landing bearing comprising a landing bearing which, in the event of normal operation of the radial magnetic bearings failing, limits radial displacements of the rotor within the stator by ensuring that the rotor remains approximately centered, radial clearance being provided between one of the rotor ring or stator ring and the corresponding bearing surface of the rotor or of the stator.